WHAT IS CLAIMED IS:

1. A method of enhancing one or more digital images from a plurality of digital images that are believed to be affected by a common noise source, comprising the steps of:

a) receiving two or more source digital images that are believed to be affected by a common noise source;

b) using the pixels of the received source digital images to calculate a noise characteristic value that relates to the noise present in the received source digital images; and

c) using the noise characteristic value and the received source digital images to respectively calculate enhanced digital images for the one or more of the received source digital images.

2. The method of claim 1 wherein step b) includes calculating the noise characteristic values as a function of the numerical values of the received source digital image pixels.

3. The method of claim 1 wherein the source digital images have pixels corresponding to different colors and step b) includes calculating the noise characteristic values as a function of the color of the received source digital image pixels.

4. The method of claim 1 wherein the source digital images have pixels corresponding to different colors and step b) includes calculating the noise characteristic values as a function of the color and the numerical values of the received source digital image pixels.

5. The method of claim 1 wherein the noise characteristic value is a function of the standard deviation of the noise present in the source digital images.

6. The method of claim 1 wherein step b) includes:

using a residual spatial filter to calculate a residual digital image for each received source digital image;

using the pixel values of the residual digital images to generate a residual histogram; and

using the residual histogram to calculate the noise characteristic value.

7. The method of claim 6 wherein the source digital images have pixels corresponding to different colors and step b) includes the step of generating the residual histograms as a function of the color and the numerical values of the received source digital image pixels and calculating the corresponding noise characteristic values as a function of the color and the numerical values of the received source digital image pixels.

8. The method of claim 1 wherein step c) further includes using an adaptive spatial filter responsive to the noise characteristic value to calculate the enhanced digital images.

9. The method of claim 8 wherein the adaptive spatial filter is a spatial sharpening filter or a noise reduction filter.

10. The method of claim 1 wherein the received source digital images are received from a single image capture device including a digital camera, a photographic film scanner or print scanner.

11. The method of claim 1 wherein all of the received source digital images are derived from the same photographic film type.

12. The method of claim 1 wherein all of the received source digital images are derived from the same consumer.

13. In a method of enhancing one or more digital images of a plurality of digital images which are believed to be affected by a common noise source, comprising the steps of:

a) receiving two or more received source digital images which are believed to be affected by a common noise source;

b) using the pixels of the received source digital images to calculate a noise characteristic value which relates to the noise present in the received source digital images; and

c) storing the noise characteristic value with the received source digital images so that the noise characteristic value and the received source digital images can subsequently be used to generate one or more enhanced digital images.

14. A method of calculating an updated noise characteristic value for a plurality of source digital images which are believed to be affected by a common noise source, comprising the steps of:

a) receiving two or more received source digital images which are believed to be affected by a common noise source;

b) receiving a source type identification tag corresponding to the received source digital images;

c) using the source type identification tag to select an appropriate default noise characteristic value from a plurality of stored default noise characteristic values;

d) using the pixels of the received source digital images to calculate a local noise characteristic value; and

e) combining the selected default noise characteristic value and the local noise characteristic value to calculate the updated noise characteristic value.

15. The method of claim 14 wherein step d) includes calculating the local noise characteristic values as a function of the numerical values of the received source digital image pixels.

16. The method of claim 14 wherein the received source digital images have pixels corresponding to different colors and in step d) including calculating the local noise characteristic values as a function of the color of the received source digital image pixels.

17. The method of claim 14 wherein the received source digital images have pixels corresponding to different colors and in step d) including calculating the local noise characteristic values as a function of the color and the numerical values of the received source digital image pixels.

18. The method of claim 14 wherein the local noise characteristic value is a function of the standard deviation of the noise present in the received source digital images.

19. The method of claim 14 wherein step d) includes;

using a residual spatial filter to calculate a residual digital image for each received source digital image;

using the pixel values of the residual digital images to generate a residual histogram; and

using the residual histogram to calculate the local noise characteristic value.

20. The method of claim 19 wherein the received source digital images have pixels corresponding to different colors and in step d) including the step of generating the residual histograms as a function of the color and the numerical values of the received source digital image pixels and calculating the corresponding local noise characteristic values as a function of the color and the numerical values of the received source digital image pixels.

21. The method of claim 14 wherein the source identification tag identifies that the received source digital images are derived from a single image capture device including a digital camera, a photographic film scanner or print scanner.

22. The method of claim 14 wherein the received source identification tag identifies that all of the received source digital images are derived from the same photographic film type.

23. The method of claim 14 wherein the source identification tag identifies that all of the received source digital images are derived from the same consumer.

24. The method claimed in claim 14 further including using the updated noise characteristic value to enhance one or more of the received source digital images.

25. The method of claim 24 further including using an adaptive spatial filter responsive to the updated noise characteristic value to enhance one or more of the received source digital images.

26. The method of claim 25 wherein the adaptive spatial filter is a sharpening filter or a noise reduction filter.

27. The method claimed in claim 14 wherein step e) further includes the step of calculating the updated noise characteristic value from a linear combination of the local noise characteristic value and the default noise characteristic value.

28. A method of estimating a noise characteristic value for a plurality of source digital images which are believed to be affected by a common noise source, comprising the steps of:

a) receiving two or more source digital images which are believed to be affected by a common noise source;

b) receiving a source type identification tag corresponding to the source digital images;

c) using the source type identification tag to select a default residual histogram from a plurality of stored default residual histograms;

d) using the pixels of the received source digital images to calculate a local residual histogram;

e) combining the selected default residual histogram and the local residual histogram to generate an updated residual histogram; and

f) using the updated residual histogram to calculate the noise characteristic value.

29. The method of claim 28 wherein step d) includes calculating the local residual histograms as a function of the numerical values of the received source digital image pixels and wherein step f) includes calculating the noise characteristic values as a function of the numerical values of the received source digital image pixels from the corresponding updated residual histogram.

30. The method of claim 28 wherein the received source digital images have pixels corresponding to different colors and step d) includes the step

of calculating the local residual histograms as a function of the color of the received source digital image pixels and step f) includes calculating the noise characteristic values as a function of the color of the received source digital image pixels from the corresponding updated residual histogram.

31. The method of claim 29 wherein the received source digital images have pixels corresponding to different colors and step d) includes the step of calculating the local residual histograms as a function of the color and the numerical values of the received source digital image pixels and step f) includes calculating the noise characteristic values as a function of the color and numerical values of the received source digital image pixels from the corresponding updated residual histogram.

32. The method of claim 28 wherein the noise characteristic value is a function of the standard deviation of the noise present in the received source digital images.

33. The method of claim 28 wherein step d) includes;

using a residual spatial filter to calculate a residual digital image for each received source digital image; and

using the pixel values of the residual digital images to generate the local residual histogram.

34. The method claimed in claim 28 further including using the noise characteristic value to enhance one or more of the received source digital images.

35. The method of claim 34 further including using an adaptive spatial filter responsive to the noise characteristic value to enhance one or more of the received source digital images.

36. The method of claim 35 wherein the adaptive spatial filter is a spatial sharpening filter or a noise reduction filter.

37. The method claimed in claim 28 wherein step e) further includes the step of calculating the updated residual histogram from a linear combination of the local noise residual histogram and the default residual histogram.

38. A computer storage medium having instructions stored therein for causing a computer for performing the method of claim 1.

39. A computer storage medium having instructions stored therein for causing a computer for performing the method of claim 13.

40. A computer storage medium having instructions stored therein for causing a computer for performing the method of claim 14.

41. A computer storage medium having instructions stored therein for causing a computer for performing the method of claim 28.